Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-25 (canceled).

Claim 26 (currently amended): A mobile information processor~~,~~ comprising:

a processor;

a memory device which stores instructions, which when executed by the processor, cause the processor to:

(a) search, in a local area, for ~~perform data communication with~~ an external apparatus which can communicate with the mobile information processor, said external apparatus including identification information;

(b) collect said identification information from ~~of~~ said external apparatus; ~~accessible nearby apparatuses and store the information in a storage means;~~

(c) acquire user information ~~of said processor~~ from a remote user information database based on said collected identification information~~; of at least one of the nearby apparatuses;~~

(d) transmit, ~~request a communication service~~ to a service provider, ~~based on~~ the acquired user information, said service provider being configured to determine whether a communication service can be provided based on said transmitted user information; and

(e) in response to a determination that the communication service can be provided based on said transmitted user information, ~~and~~utilize said communication service. ~~based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.~~

Claim 27 (currently amended): The mobile information processor of Claim 26, wherein when executed by the processor, the instructions cause the processor to receive the identification information of the external apparatus ~~nearby apparatuses~~ from a space directory, wherein said space directory:

(a) stores the identification information of the external apparatus; ~~nearby apparatuses;~~ and

(b) updates the identification information of the external apparatus. ~~nearby apparatuses.~~

Claim 28 (currently amended): The mobile information processor of Claim 26, wherein when executed by the processor, the instructions cause the processor to:

(a) receive the identification information of the external apparatus ~~nearby apparatuses~~ from a space directory which stores the identification information of the external apparatus; ~~nearby apparatuses;~~ and

(b) in response to a transmission challenge from the space directory, transmit encrypted data of the challenge created by its own secret key together with a public-key certificate to the space directory.

Claim 29 (previously presented): The mobile information processor of Claim 26, wherein when executed by the processor, the instructions cause the processor to perform Bluetooth wireless communication.

Claim 30 (currently amended): The mobile information processor of Claim 26, wherein when executed by the processor, the instructions cause the processor to periodically collect the identification information of the external apparatus. ~~accessible nearby apparatuses.~~

Claim 31 (currently amended): The mobile information processor of Claim 26, wherein when executed by the processor, the instructions cause the processor to:

(a) communicate with a personal directory which stores original data of the identification information of the external apparatus ~~nearby apparatuses~~ through a communication relay included in the external apparatus; ~~nearby apparatuses;~~ and

(b) register a position of the mobile information processor in the personal directory.

Claim 32 (currently amended): An information processor~~,~~ comprising:

a processor;

a memory device which stores instructions, which when executed by the processor, cause the processor to:

(a) perform data communication with (i) a mobile information processor; and (ii) an external apparatus including identification information;

(b) collect said identification information;

(c) acquire user information ~~of said processor~~ from a remote user information database based on said collected identification information~~; of at least one nearby apparatus;~~

(d) receive a service request from the mobile information processor; ~~external apparatus based on the acquired user information;~~

(e) determine whether said service request can be provided based on said acquired user information; and

(f) in response to a determination that the service request can be provided based on said acquired user information, provide said collected identification information ~~at least part of the original information as nearby apparatus information~~ to the mobile information processor. ~~external apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.~~

Claim 33 (currently amended): The information processor of Claim 32, wherein when executed by the processor, the instructions cause the processor to register position information of the mobile information processor. ~~external apparatus.~~

Claim 34 (currently amended): An information processor~~,~~ comprising:

a processor;

a memory device which stores instructions, which when executed by the processor, cause the processor to:

(a) perform data communication with: (i) a mobile information processor; and (ii) an external apparatus including identification information;

(b) acquire user information which is stored by ~~of said processor from~~ a remote user information database, said acquisition being based on said identification information; ~~of at least one nearby apparatus;~~

(c) receive a service request from the external apparatus based on the acquired user information; ~~and~~

(d) determine whether a communication service can be provided based on: (i) said acquired user information; and (ii) said identification information; and

(e) in response to a determination that the communication service can be provided based on: (i) said acquired user information; and (ii) said identification information, provide the communication ~~a~~ service to the mobile information processor. ~~external apparatus based on based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information and the information of the information processors.~~

Claim 35 (currently amended): The information processor of Claim 34, wherein when executed by the processor, the instructions cause the processor to transmit the identification information ~~of the information processors about nearby apparatuses~~ to the mobile information processor. ~~the external apparatus.~~

Claim 36 (currently amended): The information processor of Claim 34, wherein when executed by the processor, the instructions cause the processor to:

(a) before transmitting the identification information, ~~of the information processors about nearby apparatuses, ,~~ perform authentication processing by challenge response;

(b) perform challenge transmission; and

(c) receive encrypted data of the challenge transmission created by a secret key of the external apparatus and a public-key certificate as a response from the mobile information processor. ~~external apparatus.~~

Claim 37 (previously presented): The information processor of Claim 34, wherein when executed by the processor, the instructions cause the processor to perform Bluetooth wireless communication.

Claim 38 (currently amended): A data communication system~~,~~ comprising:

a mobile apparatus including:

(a) a first processor; and

(b) a first memory device storing instructions, which when executed by the first processor, cause the first processor to collect identification information of an external apparatus which can communication with the mobile apparatus; ~~storing information of nearby apparatuses; and~~

a personal directory including: ~~which:~~

(a) a second processor; and

(b) a second memory device storing instructions, which when executed by the second processor, cause the second processor to:

(i) perform data communication with: (A) the mobile apparatus; and (B) the external apparatus;

(ii)~~(a)~~ acquire ~~acquires~~ user information which is stored by ~~of said mobile apparatus from~~ a remote user information database, said

acquisition being based on said identification information; ~~of at least one of the nearby apparatuses;~~

(iii)~~(b)~~ receive ~~receives~~ a service request from the mobile apparatus through a network based on the acquired user information; ~~and~~

(iv)~~(c)~~ determine whether a communication service can be provided based on: (i) said acquired user information; and (ii) said identification information; and

(v) in response to a determination that the communication service can be provided based on: (i) said acquired user information; and (ii) said identification information, provide ~~provides~~ the communication ~~a~~ service to the mobile apparatus. ~~based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.~~

Claim 39 (currently amended): The data communication system of Claim 38, further comprising a service provider, wherein the service provider provides a second communication service based on information obtained from the personal directory.

Claim 40 (currently amended): The data communication system of Claim 38, further comprising a space directory server which stores the identification information of the external apparatus. ~~information processors in a local area, wherein the space directory server:~~

~~acquires user information of said space directory from a remote user information database based on said information of at least one nearby apparatus;~~

~~receives a service request including information of nearby apparatuses from the mobile apparatus based on the acquired user information; and~~

~~provides a service through the nearby apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.~~

Claim 41 (currently amended): The data communication system of Claim 40, wherein the communication service providing process is performed through a service provider.

Claim 42 (currently amended): A method of operating ~~obtaining information of nearby apparatuses by using~~ a mobile information processor including instructions, the method comprising:

(a) causing a processor to execute the instructions to access ~~accessing~~ a space directory which stores identification ~~the~~ information of an external apparatus; ~~the nearby apparatuses;~~

(b) causing the processor to execute the instructions to transmit, ~~transmitting,~~ in response to a transmission challenge from the space directory, encrypted data of the challenge created by its own secret key together with a public-key certificate to the space directory;

(c) causing the processor to execute the instructions to receive ~~receiving~~ the identification information of the external apparatus ~~nearby apparatuses~~ from the space directory;

(d) causing the processor to execute the instructions to acquire ~~acquiring~~ user information from a remote user information database based on said received identification information; ~~of at least one of the nearby apparatuses;~~

(e) causing the processor to execute the instructions to transmit, ~~requesting a communication service~~ to a service provider, ~~based on~~ the acquired user information, said service provider being configured to determine whether a communication service can be provided based on said acquired user information transmitted to said service provider; and

(f) in response to a determination that the communication service can be provided based on said acquired user information transmitted to said service provider, utilize ~~utilizing~~ said communication service. ~~based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.~~

Claim 43 (currently amended): The method of Claim 42, which includes causing the processor to execute the instructions to communicate ~~further comprising communicating~~ with a personal directory which stores original data of the identification information of the external apparatus ~~nearby apparatuses,~~ so as to register position information of the mobile information processor in the personal directory.

Claim 44 (currently amended): A method of operating a mobile information processor including instructions, the ~~data communication~~ method, comprising:

(a) causing a processor to execute the instructions to search, in a local area, for an external apparatus which can communicate with the mobile information processor, said external apparatus including identification ~~obtaining~~ information; ~~of nearby apparatuses as information of information processors in a local area, the step of obtaining being performed by a mobile apparatus;~~

(b) causing the processor to execute the instructions to collect said identification information of said external apparatus;

(c) causing the processor to execute the instructions to acquire ~~acquiring~~ user information from a remote user information database based on said collected identification information of the external apparatus; ~~at least one of the nearby apparatuses; and~~

(d) causing the processor to execute the instructions to transmit, to a service provider, ~~transmitting, based on~~ the acquired user information from the remote user information database, said service provider being configured to determine whether a communication service can be provided based on said acquired user information transmitted to said service provider; and

(e) in response to a determination that the communication service can be provided based on said acquired user information transmitted to said service provider , causing the processor to execute the instructions to utilize said service communication service. ~~, a service request including the information of the nearby apparatuses from the mobile apparatus to a personal directory, which stores original data of the information of nearby apparatuses, so that the personal~~

~~directory provides a service through the nearby apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.~~

Claim 45 (currently amended): The data communication method of Claim 44, which includes causing the processor to execute the instructions to obtain ~~obtaining~~ the identification information ~~of the nearby apparatuses is obtained~~ from a space directory server which stores the identification information. ~~of information processors as nearby apparatuses.~~

Claim 46 (currently amended): The data communication method of Claim 44, which includes transmitting the communication service request through the ~~a~~ service provider.

Claim 47 (currently amended): A data communication method~~,~~ comprising:

(a) causing a mobile apparatus to collect identification ~~obtaining~~ information of an external apparatus which can communication with the mobile apparatus in a local area; and ~~nearby apparatuses as information of information processors in a local area directly from the information processor, the step of obtaining being performed by a mobile apparatus;~~

(b) causing a personal directory to:

(i) perform data communication with: (A) the mobile apparatus; and (B) the external apparatus;

(ii) acquire ~~acquiring~~ user information which is stored by ~~from~~ a remote user information database, said acquisition being based on said identification information; ~~of at least one of the nearby apparatuses; and~~

(iii) receive ~~receiving, based on the acquired user information,~~ a service request ~~including the information of the nearby apparatuses~~ from the mobile apparatus through a network based on the acquired user information; ~~, the step of receiving being performed by a personal directory which stores original data of the information of nearby apparatuses so that the personal directory~~

(iv) determine whether a communication service can be provided based on: (i) said acquired user information; and (ii) said identification information; and

(v) in response to a determination that the communication service can be provided based on: (i) said acquired user information; and (ii) said identification information, provide the communication ~~provides a~~ service through the external ~~nearby~~ apparatus to the mobile apparatus. ~~based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.~~

Claim 48 (previously presented): The data communication method of Claim 47, which includes receiving the service request through a service provider.

Claim 49 (currently amended): A computer ~~program product embodied in a computer~~ readable medium storing instructions structured to cause ~~a program for enabling~~ a mobile information processor to: ~~execute a process of obtaining information of nearby apparatuses, comprising:~~

(a) access ~~a step of accessing~~ a space directory which stores identification ~~the~~ information of an external apparatus; ~~the nearby apparatuses;~~

(b) transmit, ~~a step of transmitting,~~ in response to a transmission challenge from the space directory, encrypted data of the challenge created by its own secret key together with a public-key certificate to the space directory;

(c) receive ~~a step of receiving~~ the identification information of the external apparatus ~~nearby apparatuses~~ from the space directory;

(d) acquire ~~a step of acquiring~~ user information from a remote user information database based on said received identification; ~~information of at least one of the nearby apparatuses;~~

(e) transmit, ~~a step of requesting a communication service~~ to a service provider, ~~based on~~ the acquired user information, said service provider being configured to

determine whether a communication service can be provided based on said transmitted user information; and

(f) in response to a determination that the communication service can be provided based on said transmitted user information, utilize ~~a step of utilizing~~ said communication service. ~~based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.~~

Claim 50 (currently amended): A computer ~~program product embodied in a computer~~ readable medium storing instructions structured to cause ~~a program for enabling~~ a mobile information processor to: ~~execute a process of obtaining information of nearby apparatuses, comprising:~~

(a) access, from a local area, an external apparatus which includes ~~a step of accessing an information processor which stores apparatus~~ identification information;

(b) transmit, ~~a step of transmitting,~~ in response to a transmission challenge from the external apparatus, ~~information processor,~~ encrypted data of the challenge created by its own secret key together with a public-key certificate to the external apparatus; ~~information processor;~~

(c) receive ~~a step of receiving~~ the identification ~~apparatus~~ information from the external apparatus; ~~information processor;~~

(d) acquire ~~a step of acquiring~~ user information from a remote user information database based on said received identification information; ~~of at least one of the nearby apparatuses;~~

(e) transmit, ~~a step of requesting a communication service~~ to a service provider, ~~based on~~ the acquired user information, said service provider being configured to determine whether a communication service can be provided based on said transmitted user information; and

(f) in response to a determination that the communication service can be provided based on the said transmitted user information, utilize ~~a step of utilizing~~ said communication service. ~~based on a determination of whether or not said~~

~~communication service can be provided by said service provider, wherein the determination is based on said user information.~~

Claims 51 to 53 (canceled).

Claim 54 (currently amended): The mobile information processor of Claim 26, wherein said external apparatus includes an ~~nearby apparatuses include a nearby~~ access point.